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(54) Title: DETECTION METHOD OF DNA AMPLIFICATION USING PROBE LABELED WITH INTERCALATING DYE

(57) Abstract: The present invention relates to a detection method of nucleic acid amplification using probe labeled with intercalating dye. More particularly, the present invention is directed to a real-time detection method of nucleic acid amplification, comprising the steps of i ) producing an aqueous buffer which contains a nucleic acid, a pair of primers for amplification of said nucleic acid, a fluorescent probe wherein a fluorescent dye of which intensity of fluorescence is varied when the dye is intercalated into a double-stranded nucleic acid, is connected with an oligonucleotide of which base sequence is complementary with at least a part of said nucleic acid, four(4) kinds of nucleotides and DNA polymerase; ii) denaturing said doublestranded nucleic acid into single strands by heating the aqueous buffer prepared in step i) up to 931C to 96C; iii) annealing said pair of primers with said single strand by cooling the solution obtained in step ii) up to 50 C to 571C; iv) replicating said single-stranded nucleic acid by heating the solution obtained from step iii) up to 701C to 74°C; v) denaturing said replicated nucleic acid into single strands by heating the solution obtained in step iv) up to 931C to 961C; vi) annealing said fluorescent probe with said single-stranded nucleic acid by cooling the solution obtained in step v) up to 501C to 57 C ;vii) measuring an intensity of the fluorescence emitted from the solution obtained in step vi); and viii) repeating more than one steps iv) through vii).